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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,423	04/10/2006	Teunis Willem Tukker	FR 030122	3758
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EXAMINER				
CHU, KIM KWOK				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,423

Applicant(s)

TUKKER ET AL.

Examiner

Kim-Kwok CHU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____
- Paper No(s)/Mail Date ____

Drawing Objection

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature "a plurality of holograms" in Claim 1, line 8; Claim 4, line 8, Claim 7, lines 10 and 11; and Claim 10, line 4, must be shown or the feature canceled from the claim. No new matter should be entered.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

(a) in claim 1, line 2, the term "an apparatus" should be changed to --an apparatus comprising an optical read/write unit--; and

(b) in Claim 1, lines 7 and 8, the phrase "an optical read/write unit of said apparatus" should be changed to -the optical read/write unit--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) in Claim 1, line 4, the term "detecting an amount" is not clear because there is no detecting means defined in Applicant's claimed apparatus;

(b) similarly, in Claim 1, line 10, the term "selecting among" is not clear because there is no selecting mean defined in Applicant's claimed apparatus;

(c) furthermore, in claim 1, last line, the term "for compensating" is not clear because how the compensating action by using the hologram is not defined in the claim;

(d) in Claim 3, line 2, the term "by rotating" is not clear because there is no rotating means defined in Applicant's claimed apparatus; and

(e) in each Claims 1, 4, 7 and 10, the term "said holographic optical element containing a plurality of holograms" is not clear because the structure of the holograms are not

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defined. Applicant should clarify whether the holograms are in different layers or in the same layer of the holographic optical element.

5. Dependent claims not specifically mentioned above are indefinite based upon their dependence of an indefinite claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ogasawara (U.S. Patent 6,141,304).

8. Ogasawara teaches a method of compensating tilt of an optical or magneto-optical disc having all of the steps as recited in claim 1-3. For example, Ogasawara teaches the following:

(a) with respect to Claim 1, the method of compensating tilt of an optical disc exhibiting unknown tilt when placed in an apparatus for reading and/or writing data from and/or onto

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the optical disc (Fig. 1) comprising the steps of: detecting an amount of one element of the group comprising the tilt of the disc, a coma aberration resulting from the tilt, and a physical quantity (thickness of the disc) related to the coma aberration (Fig. 1; abstract), providing a holographic optical element 3 (Fig. 1; liquid crystal is a holographic means; column 5, lines 42-50) in a light path of an optical read/write unit 1 of the apparatus (Fig. 1), the holographic optical element 3 containing a plurality of holograms 15-19 (Fig. 5B) each defining a phase profile able to compensate at least a specific coma amount (Fig. 5B; column 7, lines 18-26), selecting among the plurality of holograms 15-19 a hologram defining a phase profile corresponding to the amount of tilt or coma detected in step (a) (Fig. 5B; column 7, lines 18-26), and using the selected hologram for compensating the detected amount of tilt or coma (Fig. 5B; column 7, lines 18-26) .

(b) with respect to Claim 2, the selecting step is performed by changing a relative spatial relationship (diffraction) between the holographic optical element 3 and a polarization direction of a light beam impinging on the holographic optical element 3 in the optical read/write unit (Figs. 1, 5 and 11B).

(c) with respect to Claim 3, the relative spatial

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relationship (light diffraction) is changed by rotating (orientation of the liquid crystal molecules) the holographic optical element (Fig. 5B; internal structure of the liquid crystal is changed/rotated).

9. Ogasawara teaches a device for compensating tilt of an optical disc having all of the elements and means as recited in claims 4-10. For example, Ogasawara teaches the following:

(a) with respect to Claim 4, the device for compensating tilt of an optical exhibiting unknown tilt when placed in an apparatus for reading and/or writing data from and/or onto the optical disc 6 (Fig. 1), comprising: means 9 (Fig. 1; column 5, lines 4 and 5) for detecting an amount of one element of the group comprising the tilt of the disc 6, a coma aberration resulting from the tilt, and a physical quantity related to the coma aberration (Fig. 15), holographic optical element 3 (liquid crystal means is used as a holographic means) disposed in a light path of an optical read/write unit 1 of apparatus, the holographic optical element 3 containing a plurality of holograms 15-19 (Fig. 5B) each defining a phase profile able to compensate at least a specific coma amount (Fig. 5B), and means 10 for selecting (controlling) among the plurality of holograms (15-19) a hologram defining a phase profile corresponding to the amount

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of tilt or coma which has been detected by the detecting means 9 and which is to be compensated (Fig. 15).

(b) with respect to Claim 5, the selecting means 10 comprises means for changing a relative spatial relationship (diffraction profiles) between said holographic optical element 3 and a polarization direction of a light beam impinging on the holographic optical element 3 (Fig. 5B).

(c) with respect to Claim 6, the changing means 10 comprises means for rotating the holographic optical element 3 (Fig. 5B; internal structure of the liquid crystal is changed/rotated).

10. Claims 7-9 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above.

11. Claim 10 has limitations similar to those treated in the above rejection, and is met by the reference as discussed above. In addition, the prior art of Ogasawara also teaches the following:

(a) with respect to Claim 10, the holographic element 3 (Fig. 5B) comprising a substrate containing a plurality of holograms (Figs. 5B and 6).

Related Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kojima et al. (6,804,186) is pertinent because Kojima teaches a tilt compensating means implemented by a liquid crystal.

Wada et al. (6,532,202) is pertinent because Wada teaches a tilt compensating means implemented by a liquid crystal.

Sugiura et al. (6,130,872) is pertinent because Sugiura teaches a holographic means is implemented by a liquid crystal means in Fig. 27.

Ootaki et al. (5,936,923) is pertinent because Ootaki teaches a tilt compensating means implemented by a liquid crystal.

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13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627

September 16, 2008
(571) 272-7585

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627